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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.  
10234/2

In Re Application Of: Pang-Chia LU, et al.

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/757,175	January 9, 2001	Victor S. Chang	23455	1771	1308

Invention: Colored Polyolefin Film And Method Of Making

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on December 17, 2004

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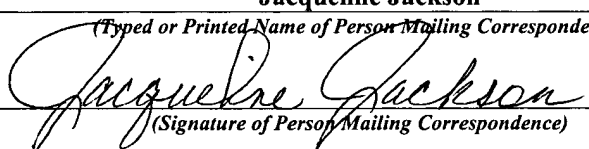
  
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Dated: February 17, 2005

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Application No. 09/757,175	Filing Date January 9, 2001	Examiner Victor S. Chang	Customer No. 23455	Group Art Unit 1771
Invention: Colored Polyolefin Film And Method Of Making				
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## PATENT APPLICATION

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No. : 09/757,175 Confirmation No.: 1308  
Applicant : Pang-Chia LU *et al.*  
Filed : January 9, 2001  
TC/A.U. : 1771  
Title: : "COLORED POLYOLEFIN FILM AND METHOD OF MAKING"  
Examiner : Victor S. CHANG  
Docket No. : 10234/2  
Customer No. : 23455 Date: February 17, 2005

#### APPEAL BRIEF UNDER 37 C.F.R. § 41.37

#### MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellants submit the following:

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**I. REAL PARTY IN INTEREST**

The real party in interest is ExxonMobil Chemical Company, the assignee of the present application.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' counsel, and the assignee of the application are not aware of any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **III. STATUS OF CLAIMS**

Claims 1, 3-5, 8-27, 29, and 31-38 are pending in the application.

Claims 1, 3-5, 29, 31-36, and 38 are rejected.

Claims 8-27 and 37 are withdrawn from consideration for being drawn to a non-elected invention.

Claims 1, 3-5, 29, 31-36, and 38 are being appealed.

Claims 1, 3-5, 29, 31-36, and 38 are set forth in their entirety in the Claims Appendix submitted herewith.

#### **IV. STATUS OF AMENDMENTS**

On November 22, 2004, a Response Under 37 C.F.R. § 1.116 was filed in response to the final Office Action mailed September 22, 2004.

The Response did not include an amendment to the claims.

The Advisory Action mailed December 1, 2004, indicates that the remarks submitted in the November 22<sup>nd</sup> Response have been considered but do not place the application in condition for allowance. The Examiner attached additional pages to the Advisory Action and provided therein comments on why the application is not in condition for allowance.

## **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1 is an independent claim. It is drawn to a multi-layered colored polymeric film. Page 1, lines 13-15. The film of Claim 1 comprises an opaque core layer (a) and a first skin layer (b). Page 16, lines 20-22, and FIG. 6. Claim 1 requires the opaque core layer (a) to comprise a thermoplastic material, and it requires the core layer to have a first side and a second side. Page 16, lines 30-32. Claim 1 also requires the first skin layer (b) to comprise a thermoplastic material with a coloring agent, and it requires the first skin layer to be adjacent to the first side of the core layer. Page 16, lines 25-26. According to Claim 1, each layer of the film is substantially free of voids. Page 17, lines 6-9, and the example film compositions described at page 27 forward.

Claim 2 has been canceled.

Claims 3 and 4 depend from Claim 1. They require the core layer to comprise from about 1.5% to about 15% by weight of TiO<sub>2</sub>. Original Claims 3 and 4.

Claim 5 depends from Claim 1. It requires the core layer to comprise isotactic polypropylene. Page 19, lines 19-23.

Claims 6 and 7 have been canceled.

Claims 8-27 have been withdrawn from consideration.

Claim 28 has been canceled.

Claim 29 depends from Claim 2. It requires the core layer to comprise a material selected from the group consisting of high density polyethylene and linear low density polyethylene. Page 19, lines 23-24, and page 22, lines 27-30.

Claim 30 has been canceled.

Claim 31 is an independent claim drawn to a multi-layered colored thermoplastic film. Page 1, lines 13-15. The film of Claim 31 comprises an opaque core layer (a), a first transition layer (b), and a first skin layer (c). Page 14, lines 24-26. Claim 31 requires the opaque core layer (a) to comprise a thermoplastic material, and it requires the core layer to have a first side



and a second side. Page 16, lines 30-32. Claim 31 also requires the first transition layer (b) to comprise a thermoplastic material, and it requires the first transition layer to have a first side and a second side wherein the second side of the first transition layer is adjacent to the first side of the core layer. Page 14, line 28, through page 16, line 5. Furthermore, Claim 31 requires the first skin layer (c) to comprise a thermoplastic material, and it requires the first skin layer to have a first side and a second side, wherein the second side of the first skin layer is adjacent to the first side of the first transition layer. Page 14, line 28, through page 16, line 5. According to Claim 31, the multi-layered colored thermoplastic film further comprises a coloring agent in one layer selected from the group consisting of the first transition layer and the first skin layer, and each layer of the film is substantially free of voids. Page 14, line 28, through page 16, line 5, page 17, lines 6-9, and the example film compositions described at page 27 forward.

Claim 32 depends from Claim 31. It requires the film to further comprise a second skin layer having a first side and a second side, wherein the first side of the second skin layer is adjacent to the second side of the core layer. Page 16, lines 7-10.

Claim 33 also depends from Claim 31. It requires the film to further comprise a second transition layer having a first side and a second side, wherein the first side of the second transition layer is adjacent to the second side of the core layer. Claim 33 also requires the film to comprise a second skin layer having a first side and a second side, wherein the first side of the second skin layer is adjacent to the second side of the second transition layer. Page 9, line 31, through page 10, line 2.

Claim 34 depends from Claim 32. It requires the second skin layer to comprise a coloring agent. Page 14, line 28, through page 16, line 5.

Claim 35 depends from Claim 33. It requires the second skin layer to comprise a coloring agent. Page 14, line 28, through page 16, line 5.

Claim 36 depends from Claim 1. It requires the first skin layer to have a percent opacity less than about 40% and a percent light transmission greater than about 65%. Page 14, line 28, through page 15, line 15.

Claim 37 has been withdrawn from consideration.

Claim 38 is an independent claim drawn to a multi-layered colored thermoplastic film. Page 1, lines 13-15. The film of Claim 38 comprises an opaque core layer (a), a first transition layer (b), and a first skin layer (c). Page 14, lines 24-26. Claim 38 requires the opaque core layer (a) to comprise a thermoplastic material, and it requires the core layer to have a first side and a second side. Page 16, lines 30-32. Claim 38 also requires the first transition layer (b) to comprise a thermoplastic material, and it requires the first transition layer to have a first side and a second side wherein the second side of the first transition layer is adjacent to the first side of the core layer. Page 14, line 28, through page 16, line 5. Furthermore, Claim 38 requires the first skin layer (c) to comprise a thermoplastic material, and it requires the first skin layer to have a first side and a second side, wherein the second side of the first skin layer is adjacent to the first side of the first transition layer. Page 14, line 28, through page 16, line 5. According to Claim 31, the multi-layered colored thermoplastic film further comprises a coloring agent in one layer selected from the group consisting of the first transition layer and the first skin layer, and each layer of the film is substantially free of voids. Page 14, line 28, through page 16, line 5, page 17, lines 6-9, and the example film compositions described at page 27 forward. In addition, Claim 38 is a linking claim.

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The issue presented for review is:

whether the Examiner erred in rejecting Claims 1, 3-5, 29, 31-36, and 38 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,758,462 to Park, *et al.* ("Park") in view of U.S. Patent 5,443,915 to Wilkie, *et al.* ("Wilkie").

## **VII. ARGUMENT**

### **The Rejection**

Claims 1, 3-5, 29, 31-36, and 38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Wilkie.

To summarize the Examiner's position, the Examiner states that Park is silent about forming an opaque **core** layer which is substantially free of voids. (Emphasis added.) The Examiner states that Wilkie teaches an oriented multilayer film having a white opaque **skin** layer. (Emphasis added.) The Examiner concludes that it would have been obvious to modify Park by reference to Wilkie motivated by the desire to obtain a substantially nonporous opaque multilayer film with improved mechanical strength. Appellants refer to the Office Action of April 9, 2004, and Section No. 4 at page 2 of the final Office Action mailed September 22, 2004.

### **The Error in the Rejection**

The error in the rejection is that the combination of Park and Wilkie fails to lead a person of ordinary skill in the art to arrive at the claimed films.

### **Why Claims 1, 3-5, 29, 31-36, and 38 are Patentable Under 35 U.S.C. § 103**

The claimed films are not rendered obvious by Park in view of Wilkie due to any one or more of (i) Wilkie provides neither the motivation to modify Park in the manner proposed by the Examiner or the reasonable expectation of success in doing so, (ii) even if Park were to be modified by reference to Wilkie in the manner proposed by the Examiner, the combination does not lead to the claimed invention, and (iii) the Examiner's proposed combination of Park and Wilkie is improper because it destroys the teachings of the reference being modified (Park).

(i) The claimed films are not rendered obvious by Park in view of Wilkie because Wilkie provides neither the motivation to modify Park in the manner proposed by the Examiner or the reasonable expectation of success in doing so.

In particular, Wilkie teaches a film structure containing a core layer and a cold seal receptive layer. Wilkie's core layer is "transparent." Column 3, lines 40-42 and 57.

The Examiner is asserting that it would have been obvious to modify Park's core layer by reference to Wilkie.

A person of ordinary skill in the art, however, would look to Wilkie's **core** layer for a suggestion to modify Park's **core** layer. The person of ordinary skill in the art would not follow through on such a modification because Wilkie's core layer is transparent, whereas Park's core layer is a cavitated opaque layer. Modifying the core layer of Park by reference to Wilkie's core layer would destroy the teachings of Park and would not lead to the claimed invention.

A person of ordinary skill in the art of films would not look to layers in Wilkie other than the core layer of Wilkie for a suggestion to modify the core layer of Park.

In this regard, a person of ordinary skill in the art understands that the different layers of a film impact the overall characteristics and properties of a film in different ways. The Examiner's proposed modification of Park's core layer by reference to a layer in Wilkie other than Wilkie's core layer assumes that the composition that functions in a particular manner as the skin layer of a film will necessarily function in the same manner as the core layer of a different film. This is an improper assumption.

For example, at column 5, lines 61-64, Wilkie teaches (emphasis added):

[t]he titanium dioxide containing layer is not opaque in and of itself as the case with the expanded/cavitated cores but rather appears opaque in cooperation with the metallized layer.

In other words, Wilkie specifically teaches that the layer with which the Examiner proposes to replace Park's core layer is not opaque. Wilkie teaches that the particular layer *appears* opaque in the context of a film structure that includes the particular layer as a skin layer in combination with a transparent core layer and a metallized backside layer. There is no teaching in Wilkie, and thus no reasonable expectation of success from Wilkie, that the particular layer would also *appear opaque* if it were to be used as the core layer of a film.

For these reasons (i) alone, the claimed films are not rendered obvious by Park in view of Wilkie.

(ii) The claimed films are not rendered obvious by Park in view of Wilkie because even if Park were to be modified by reference to Wilkie in the manner proposed by the Examiner, the combination does not lead to the claimed invention.

At page 3, lines 3-6, of the final Office Action mailed September 22, 2004, the Examiner asserts that “it would have been obvious to one of ordinary skill in the art to modify Park’s core layer with *an opaque polyolefin layer*, as taught by Wilkie ....” (Emphasis added.)

Referring again to the disclosure at column 5, lines 61-64, however, Wilkie specifically teaches that the layer with which the Examiner proposes to replace Park’s core layer is not opaque. Wilkie specifically contrasts its titanium dioxide containing layer, which it states is not opaque in and of itself, with an expanded/cavitated core layer, which it states is opaque in and of itself. Thus, even if Park were to be modified by reference to Wilkie in the manner proposed by the Examiner, the modification would not result in the claimed opaque core layer.

It is well-settled that the prior art references, when combined, must teach or suggest each and every claim limitation. MPEP § 2143 and In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the present case, replacing the core layer of Park by the cold seal receptive skin layer of Wilkie does not teach or suggest the claimed opaque core layer.

It is only with the benefit of the present disclosure that a person of ordinary skill in the art would understand that an opaque *core layer* can be provided which is substantially free of voids.

For these reasons (ii) alone, the claimed films are not rendered obvious by Park in view of Wilkie.

(iii) The claimed films are not rendered obvious by Park in view of Wilkie because the Examiner’s proposed combination of Park and Wilkie is improper and destroys the teachings of Park.

The Examiner’s proposed combination of Park and Wilkie is improper because a proposed modification or combination of the prior art cannot change the *principle of operation* of the prior art invention being modified. MPEP §2143.01. Here, modifying Park by reference

to Wilkie changes Park's principle of operation, which is the provision of a void-containing core layer.

Park contains multiple disclosures that make it clear that the principle of operation of Park's invention is a voided core layer. Besides its Summary of the Invention and its Abstract, both of which clearly disclose the requirement of a void-containing core layer, Park at column 2, lines 53-58, discloses the importance of the core thickness, "in combination with the population and configuration of the voids." Then, at column 4, lines 20-27, Park discloses the voids of the core (specifically, their particular dimensions) as a **"necessary part of the present invention."** (Emphasis added.) Appellants also refer to column 3, lines 13-37.

In fact, Appellants have closely reviewed Park's disclosure, and Appellants would like to point out that the vast majority of each of columns 2 through 5 is concerned with voids in the core, void-formation in the core and the void profile of the core layer. When considered in light of the fact that column 1 of Park merely discusses the background of the invention, and columns 6+ contain the examples and claims, it is a reasonable estimate that over 75% of Park's summary and detailed description of its invention relates directly to the cavitated core layer. Yet the Examiner's proposed modification to Park would completely contravene and eliminate this aspect of Park's disclosure.

Accordingly, modifying Park to remove its voided core layer would destroy Park's principle of operation.

The Examiner has specifically addressed the above arguments in the paragraph bridging pages 3 and 4 of the final Action and the first full paragraph at page 4 of the final Action. In the paragraph bridging pages 3 and 4 of the final Action, the Examiner states (emphasis in the original):

Second, importantly, while Park's invention uses a voided core to provide opaqueness to the opaque multilayered films, Wilkie's invention is clearly directed to the same intended purpose, i.e., an opaque multilayer film, as set forth above. As such, while substituting Park's voided core layer with Wilkie's nonporous

layer changes the physical structure of the core layer, it clearly does not destroy Park's principle of operation, i.e., to obtain an opaque multilayered film, Appellants' argument to the contrary notwithstanding. See MPEP 2143.01.

Appellants respectfully disagree with the Examiner's remark excerpted above and the remarks at the paragraph bridging pages 3 and 4 of the final Action and the first full paragraph at page 4 of the final Action.

Specifically, the Examiner has confused the following two separate bases presented at MPEP §2143.01 for rebutting a *prima facie* case of obviousness (emphasis added):

- (i) a *prima facie* case of obviousness is rebutted where the proposed modification to the prior art would render the prior art being modified unsatisfactory for its *intended purpose*. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); and
- (ii) a *prima facie* case of obviousness is rebutted where the proposed modification to the prior art would change the *principle of operation* of the prior art invention being modified. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The Examiner's remarks at the paragraph bridging pages 3 and 4 of the final Action relate to (i) above. That is, the intended purpose of Park, in the broadest sense, is to provide an opaque film composite, and the Examiner's position, which Appellants do not agree with, is that modifying Park by reference to Wilkie does not render Park unsatisfactory for its intended purpose of providing an opaque film composite.

However, with respect to (ii) above, the Examiner's remarks at the paragraph bridging pages 3 and 4 of the final Action are not relevant to the fact that modifying Park by reference to Wilkie changes Park's principle of operation. Park's principle of operation is different from its intended purpose.

By its plain meaning, a product's "principle of operation" is the underlying manner or method by which it operates or functions. Park's principle of operation is the provision of a



void-containing core layer. Thus, modifying Park by reference to Wilkie as proposed by the Examiner changes Park's principle of operation because it removes Park's void-containing core layer.

The Examiner has addressed the above argument at page 3 of the Advisory Action mailed December 1, 2004. Therein, the Examiner characterizes Appellants' argument as being that "'void-containing' is a necessarily required element to obtain an 'opaque layer.'"

Appellants respectfully disagree with this characterization of their argument. Appellants' position is that Park's principle of operation is not "to obtain an opaque multilayered film." Instead, Park's principle of operation is the provision of a void-containing core layer, and modifying Park by reference to Wilkie in the manner proposed by the Examiner impermissibly changes Park's principle of operation.

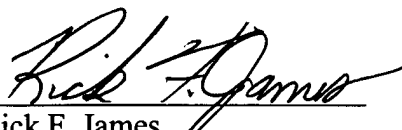
For these reasons (iii) alone, the claimed films are not rendered obvious by Park in view of Wilkie.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 05-1712.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 05-1712. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

Date: February 17, 2005

  
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### **CLAIMS APPENDIX**

#### **CLAIMS 1, 3-5, 29, 31-36, and 38 ON APPEAL:**

1. A multi-layered colored polymeric film comprising:
  - (a) an opaque core layer comprising a thermoplastic material, said core layer having a first side and a second side; and
  - (b) a first skin layer comprising a thermoplastic material with a coloring agent, wherein said first skin layer is adjacent to the first side of the core layer;wherein each layer of said film is substantially free of voids.
3. The film of claim 1 wherein the core layer comprises from about 1.5% to about 15% by weight of TiO<sub>2</sub>.
4. The film of claim 1 wherein the core layer comprises from about 1.5% to about 15% by weight of TiO<sub>2</sub>.
5. The film of claim 1 wherein the core layer comprises isotactic polypropylene.
29. The film of claim 2 wherein the core layer comprises a material selected from the group consisting of high density polyethylene and linear low density polyethylene.
31. A multi-layered colored thermoplastic film comprising:
  - (a) an opaque core layer comprising a thermoplastic material, said core layer having a first side and a second side;
  - (b) a first transition layer comprising a thermoplastic material, said first transition layer having a first side and a second side, wherein the second side of the first transition layer is adjacent to the first side of the core layer; and

- (c) a first skin layer comprising a thermoplastic material, said first skin layer having a first side and a second side, wherein the first skin layer comprises a coloring agent, and the second side of the first skin layer is adjacent to the first side of the first transition layer;

wherein each layer of said film is substantially free of voids.

32. The film of claim 31 further comprising a second skin layer having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the core layer.

33. The film of claim 31 further comprising a second transition layer having a first side and a second side wherein the first side of the second transition layer is adjacent to the second side of the core layer and a second skin layer having a first side and a second side wherein the first side of the second skin layer is adjacent to the second side of the second transition layer.

34. The film of claim 32 wherein the second skin layer comprises a coloring agent.

35. The film of claim 33 wherein the second skin layer comprises a coloring agent.

36. The film of claim 1 wherein the first skin layer has a percent opacity less than about 40% and a percent light transmission greater than about 65%.

38. A multi-layered colored thermoplastic film comprising:

- (a) an opaque core layer comprising a thermoplastic material, said core layer having a first side and a second side;
- (b) a first transition layer comprising a thermoplastic material, said first transition layer having a first side and a second side wherein the second side of the first transition layer is adjacent to the first side of the core layer; and

- (c) a first skin layer comprising a thermoplastic material, said first skin layer having a first side and a second side wherein the second side of the first skin layer is adjacent to the first side of the first transition layer;

wherein the multi-layered colored thermoplastic film further comprises a coloring agent in one layer selected from the group consisting of the first transition layer and the first skin layer, and each layer of said film is substantially free of voids.

**EVIDENCE APPENDIX:**

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

NONE

**RELATED PROCEEDINGS APPENDIX**

Submitted herewith are copies of decisions rendered by a court or the Board in any proceeding identified about in Section II pursuant to 37 C.F.R. § 41.37(c)(1)(ii).

NONE